

process unit installed in a first position and a second semiconductor process unit installed at second position where clean air flows from the second position to the first position;” and (3) “a method of fabricating a semiconductor device wherein a second location is higher than a first location.”

Applicants respectfully traverse those objections for at least the following reasons.

Regarding feature (1), at the outset Applicants respectfully submit that no such feature appears in the claims. To the contrary, prior to amendment, claim 1 recited that the second semiconductor process unit is installed higher than the first semiconductor processing unit, not the other way around. Moreover, claim 1 as now amended more specifically recites that the bake unit is installed at a higher level than the adhesion unit. Such features are very clearly shown in FIGs. 3 and 4, for example, where second unit/bake unit 161/162 is clearly shown being installed higher than first unit/adhesion unit 140.

Regarding feature (2), such a feature is very clearly shown in FIG. 4, for example, where a first semiconductor process unit (140) is shown to be installed in a first position and a second semiconductor process unit (161/162) is shown to be installed at second position, and where clean air is very clearly shown to flow from the second position to the first position.

Regarding feature (3), such a feature is very clearly shown in FIGs. 3 and 4, for example, where first semiconductor processes are performed by a first unit (140), shown to be installed in a first position, and second semiconductor processes are

performed by a second unit (161/162) that is shown to be installed at second position higher than the first position.

Accordingly, Applicants respectfully submit that no drawing corrections are required and withdrawal of the objections to the Drawings is respectfully requested.

35 U.S.C. § 102

The Examiner rejected the originally filed claims 1-7 under 35 U.S.C. § 102 as allegedly being anticipated by Applicants' disclosure in the Background section of the specification ("Background"). Applicants respectfully traverse those rejections for at least the following reasons.

Claims 1 and 3

Among other things, the device of claim 1 includes features wherein a bake unit is installed at a higher level than the adhesion unit, and clean air flows downward over the adhesion and bake units to carry a process deteriorating gas away from the bake unit.

No such features are shown in the Background.

At the outset, the meaning of claim 1 is deemed to be amply clear from inspection of the specification (see, e.g., page 5, paragraph 16, lines 8-11; page 11, paragraph 38, lines 1-5; pages 11-12, paragraph 40), the drawings (see, e.g., FIGs. 3 and 4) and the plain language of claim 1. In any event, should the Examiner deem the claim's meaning to be unclear, the proper rejection would be under 35 U.S.C. § 112, not 35 U.S.C. § 102.

Second, Applicants respectfully submit that nothing in the Background “inherently” discloses a device wherein a bake unit is installed at a higher level than an adhesion unit, and clean air flows downward over the adhesion and bake units to carry a process deteriorating gas away from the bake unit.

The M.P.E.P. states that:

“To establish inherency, the extrinsic evidence ‘must make clear that the missing descriptive matter is *necessarily* present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. *Inherency, however, may not be established by probabilities or possibilities.* The mere fact that a certain thing *may* result from a given set of circumstances *is not sufficient.*’”

M.P.E.P. § 2112, page 51 of Chapter 2100, citing In Re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1951 (Fed. Cir. 1999) (emphasis added) (citations omitted).

Clearly, it is not necessary that the bake unit be installed at a higher level than the adhesion unit, or that clean air flows downward over the adhesion and bake units to carry a process deteriorating gas away from the bake unit. Indeed, the Background clearly discloses a device that incorporated neither of these features - so these features cannot possibly be inherent!

Moreover, the specification clearly discloses specific benefits of such features, such as carrying deteriorating gas away from the bake unit. As a result, when a

variety of operational processes are sequentially performed, a deteriorating material generated or used during a first process does not harmfully influence a later process, and does not cause any operational failure.

Finally, Applicants respectfully traverse any suggestion that the claimed feature that clean air flows downward over the adhesion and bake units to carry a process deteriorating gas away from the bake unit does not carry “patentable weight.” Such a feature is not a method limitation at all, but is instead a limitation on the locational and structural relationship between the adhesion and bake units. That is, the adhesion and bake units are adapted in such a way that clean air flows downward over the adhesion and bake units to carry a process deteriorating gas away from the bake unit.

No such features are disclosed by the Background.

For at least all of the foregoing reasons, Applicants respectfully submit that claim 1 is patentable over the Background. Claim 3, dependent from claim 1, is deemed allowable for similar reasons. Withdrawal of the rejection of claims 1 and 3 under 35 U.S.C. § 102 is respectfully requested.

Claims 4-7

Among other things, the device of claim 4 includes features wherein a second semiconductor process unit performs second semiconductor fabricating processes that depend upon first semiconductor fabricating processes performed by a first semiconductor process unit, and clean air flows from the second semiconductor

process unit to the first semiconductor process unit to carry process deteriorating gas away from the second semiconductor process unit.

Applicants respectfully traverse any suggestion that the claimed feature that clean air flows from the second semiconductor process unit to the first semiconductor process unit to carry process deteriorating gas away from the second semiconductor process unit does not carry “patentable weight.” Such a feature is not a method limitation at all, but is instead a limitation on the locational and structural relationship between the first and second semiconductor processing units. That is, the first and second semiconductor processing units are adapted in such a way that clean air flows from the second semiconducting processing unit to the first semiconductor process unit to carry the process deteriorating gas away from the second semiconductor process unit.

No such feature is disclosed by the Background.

For at least all of the foregoing reasons, Applicants respectfully submit that claim 4 is patentable over the Background. Claims 5-7, dependent from claim 4, are deemed allowable for similar reasons. Withdrawal of the rejection of claims 4-7 under 35 U.S.C. § 102 is respectfully requested.

CONCLUSION

In view of the foregoing explanations, Applicant respectfully requests that the Examiner reconsider and reexamine the present application, allow claims 1 and 3-12, and pass the application to issue. In the event that there are any outstanding matters

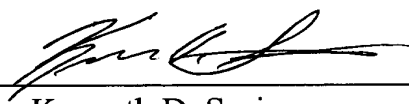
remaining in the present application, the Examiner is invited to contact Kenneth D. Springer (Reg. No. 39,843) at (703) 715-0870 to discuss these matters.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 50-0238 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17, particularly extension of time fees.

Respectfully submitted,

VOLENTINE FRANCOS, P.L.L.C.

Date: 4 January 2003

By: 
Kenneth D. Springer
Registration No. 39,843

VOLENTINE FRANCOS, P.L.L.C.
12200 Sunrise Valley Drive, Suite 150
Reston, Virginia 20191
Telephone No.: (703) 715-0870
Facsimile No.: (703) 715-0877

Version with Markings to Show Changes Made

In the Claims:

Claim 2 has been canceled without prejudice or disclaimer.

Claim 1 has been amended as follows:

1. (Amended) A semiconductor fabricating device, comprising:

[a first semiconductor process] an adhesion unit installed in a production line, the adhesion unit having an adhesion chamber that supplies an adhesion enhancing material that reinforces adhesion between a wafer and a photoresist layer when the photoresist layer is deposited onto the wafer [that performs first semiconductor fabricating processes] and that generates a process deteriorating gas [during the first semiconductor fabricating processes]; and

a [second semiconductor process] bake unit installed in the production line, the bake unit being adapted to bake the wafer having the photoresist layer formed thereon, the [second semiconductor fabricating processes] baking being susceptible to operational failures if exposed to the process deteriorating gas,

wherein the [second semiconductor process] bake unit is installed at a higher level than the [first semiconductor process] adhesion unit, and

wherein clean air flows downward over the [first and second semiconductor process] adhesion and bake units to carry the process deteriorating gas away from the [second semiconductor process] bake unit.